

TABLE 1.—*Solar radiation intensities during April, 1921.*

[Gram-calories per minute per square centimeter of normal surface.]

**Washington, D. C.**

Date.	Sun's zenith distance.										
	8 a.m.	78.7°	75.7°	70.7°	60.0°	0.0°	-0.0°	70.7°	75.7°	78.7°	Noon.
	75th merid. ian time.	Air mass.									
	e.	A. M.				P. M.					e.
		5.0	4.0	3.0	2.0	*1.0	2.0	3.0	4.0	5.0	
Apr. 1.	mm.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	mm.	
2.	4.57						1.22	1.04	0.87		3.81
3.	4.37		0.73	0.87	1.04	1.33	1.03	0.8	0.7		4.37
4.	7.57		0.44	0.52	1.05	1.34	0.91	0.74	0.58	0.48	4.17
5.	9.14		0.64	0.77	0.95	1.27	1.04	0.8	0.71	0.58	9.47
6.	10.21						1.22				10.21
11.	1.97						1.41				2.49
12.	3.15		0.77	0.93	1.12	1.42					3.15
19.	4.37						1.15	1.34			3.63
20.	4.05	0.56	0.71	0.87	1.07	1.2	0.94	0.73	0.57	0.51	4.37
25.	10.59	0.62	0.73	0.87	1.08						8.48
Means.		(0.59)	0.70	0.85	1.07	1.32	1.04	0.85	0.69	0.52	
Departures.		-0.03	-0.04	-0.02	-0.01	-0.05	-0.04	-0.05	-0.06	-0.06	

**Madison, Wis.**

Apr. 10.	2.49				1.34					2.43	
11.	3.15				1.33					4.37	
18.	3.99				1.43	1.10	0.93	0.7	0.6	4.75	
19.	4.95				1.10	1.24				6.27	
23.	5.77				1.45					6.27	
28.	4.17				1.54					5.56	
29.	4.57				1.44					5.16	
Means.					1.26	1.43	(1.10)	(0.93)	(0.76)	0.66	
Departures.					+0.02	+0.02	-0.14	-0.14	-0.11	-0.02	

**Lincoln, Nebr.**

Apr. 7.	3.63			1.14	1.23	1.44				3.81	
11.	4.17			1.06						4.75	
18.	3.81				1.45	1.11	0.88	0.7	0.56	4.95	
19.	5.73			0.95	1.19	1.31				16.20	
21.	6.71				1.19					7.21	
22.	5.77	0.94	1.05	1.11	1.32	1.48	1.23	1.07	0.93	0.81	4.17
23.	5.79							0.93	0.7	0.66	7.04
29.	5.3			0.80	1.22					6.04	
Means.		(0.94)	(1.05)	1.01	1.24	1.41	(1.17)	0.96	0.81	0.68	
Departures.		+0.16	+0.20	±0.00	+0.01	-0.06	+0.01	-0.02	-0.01	-0.02	

**Santa Fe, N. Mex.**

Apr. 8.	2.16		1.2*	1.37	1.49	1.63	1.27	1.08		1.24	
9.	1.60				1.58	1.33	1.17	1.03	0.94	1.96	
11.	3.3	0.74	0.9	0.98	1.10	1.51		1.04		3.45	
13.	3.45		1.02	1.16						3.45	
16.	2.26		0.95	1.04	1.18	1.56	1.34			1.88	
17.	2.74					1.57				2.62	
18.	2.87						1.32	1.12	0.95	0.8	2.62
20.	2.26	0.75	0.85	1.05	1.28					2.24	
21.	3.3					1.55				3.00	
22.	2.87		1.11	1.26	1.37	1.60				2.87	
23.	3.45	0.93	1.04	1.16	1.33					3.15	
27.	1.88	0.83			1.27	1.54				1.60	
28.	2.2		1.24	1.3						2.38	
29.	2.87		1.14	1.27	1.40	1.65	1.33			2.74	
Monthly means.		0.81	1.01	1.17	1.32	1.58	1.34	1.15	1.02	(0.87)	
Departures.		-0.10	-0.06	±0.00	-0.02	+0.04	+0.11	+0.07	±0.00	-0.01	

\* Extrapolated.

TABLE 2.—*Solar and sky radiation received on a horizontal surface.*

Week begin-	Average daily radia-			Average daily depart-			Excess or defi-		
	Wash-	Madis-	Lin-	Wash-	Madis-	Lin-	Wash-	Madis-	Lin-
	ington.	son.	coln.	ington.	son.	coln.	ington.	son.	coln.
Apr. 2....	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.
9.....	444	4/3	434	+51	+18	+12	+98	-4195	-1184
16....	433	311	335	+27	-8	-50	+1173	-4787	-1514
23....	410	468	629	-14	-45	+234	+1072	-5102	-85
	332	428	556	-63	-5	+114	+634	-5133	+712

**MEASUREMENTS OF THE SOLAR CONSTANT OF RADIATION AT CALAMA, CHILE, MARCH, 1921.**

By C. G. ABBOT, Assistant Secretary.

[Smithsonian Institution, Washington, May 24, 1921.]

In continuation of preceding publications, I give in the following table the results obtained at Montezuma, near Calama, Chile, in March, 1921, for the solar constant of radiation. The reader is referred to this REVIEW for February, August, and September, 1919, for statements of the arrangement and meaning of the table.

Date.	Solar con- stant.	Meth- od.	Grade	Trans- mis- sion coeffi- cient at 0.5 mi- crons.			Humidity.			Remarks.
				p/p s.e.	V. P.	Rel. hum.				
1921.										
A. M.										
Mar. 1....	1.957	M <sub>1-37</sub>	S—	.867	0.643	cm. 0.47	29			
	1.966	M <sub>1-39</sub>								
	1.963	W.M.								
2....	1.954	M <sub>1-04</sub>	S—	.864	.670	.59	32			
3....	1.958	M <sub>1-10</sub>	S—	.868	.638	.53	30			
	1.951	W.M.								
	1.959	W.M.								
4....	1.932	M <sub>3</sub>	S—	.867	.472	.52	52			
	1.945	M <sub>3</sub>								
	1.958	W.M.								
P. M.										
5....	1.943	M <sub>2-17</sub>	S—	.862	.487	.52	25			
	1.910	M <sub>2-35</sub>								
	1.943	W.M.								
6....	1.942	M <sub>1-31</sub>	S—	.858	.570	.55	33			
	1.957	M <sub>1-34</sub>								
	1.945	W.M.								
7....	1.955	M <sub>1-19</sub>	S—	.859	.533	.58	32			
	1.955	M <sub>1-21</sub>								
	1.943	M <sub>1-31</sub>								
10....	1.957	M <sub>1-05</sub>	S—	.864	.648	.38	17			
13....	1.949	M <sub>1-31</sub>	S—	.858	.545	.58	40			
P. M.										
14....	1.868	M <sub>1-31</sub>	U	.863	.498	.48	21			
A. M.										
17....	1.955	M <sub>1-11</sub>	S—	.867	.672	.39	15			
	1.943	M <sub>1-01</sub>								
	1.950	W.M.								
18....	1.913	M <sub>2</sub>	S	.858	.483	.33	24			
	1.916	M <sub>1-26</sub>								
	1.915	W.M.								
P. M.										
19....	1.946	M <sub>1-25</sub>	S—	.861	.594	.47	22			
	1.952	M <sub>1-25</sub>								
	1.948	W.M.								

Few clouds over high peaks.